Amendment to the Claims:

The following claim listing replaces all prior claim listings.

Listing of claims:

1. (Currently amended) A method of managing maintenance activities for at least one item of equipment, the method comprising:

determining configuration maintenance requirements for maintaining a target configuration of an item of equipment;

determining predictive maintenance requirements for the item of equipment based on ~~at least one of~~ a longevity estimate, a probability of failure, ~~and~~ a financial analysis, or a combination thereof; and

planning for the availability of at least one of resources and a component for performing maintenance consistent with the configuration maintenance requirements and the predictive maintenance requirements.

2. (Currently amended) The method according to claim 1 further comprising establishing a universal representation of components to facilitate ~~at least one of~~ acquisition of components from multiple sources, interchangeability of components, ~~and~~ tracking of component utilization, or a combination thereof.

3. (Currently amended) The method according to claim 1 wherein the determining configuration maintenance requirements comprises:

establishing the target configuration of the item of equipment based on a design objective of the item of equipment, wherein the design objective includes ~~at least one of~~ safety, reliability, ~~and~~ performance, or a combination thereof; evaluating an actual configuration of the item of equipment; and

determining if the actual configuration complies with the target configuration.

4. (Original) The method according to claim 3 wherein the planning comprises: planning an upgrade requirement for upgrading the actual configuration to the target configuration if the actual configuration is noncompliant.

5. (Original) The method according to claim 1 wherein the determining predictive maintenance requirements comprises:

tracking performance data on at least one of a particular component and the item of equipment; and

predicting at least one required maintenance activity based upon the performance data with respect to a defined performance standard.

6. (Original) The method according to claim 5 wherein the planning comprises: scheduling performance of the required maintenance activity at a defined respective time based upon the predicting.

7. (Original) The method according to claim 1 wherein the planning comprises planning for the acquisition of at least one of the resources and the component consistent with the configuration maintenance requirements and the predictive maintenance requirements.

8. (Original) The method according to claim 1 wherein the planning comprises planning for the delivery of at least one of the resources and the component for a time interval at a common geographic location.

9. (Original) The method according to claim 1 wherein the determining the maintenance requirement comprises estimating a longevity of a component based on a historical longevity of at least one of the component and an analogous component.

10. (Original) The method according to claim 1 wherein the determining the maintenance requirement comprises estimating a probability of failure of a component based on a historical probability of failure of at least one of the component and an analogous component.

11. (Original) The method according to claim 1 wherein the determining the maintenance requirement comprises estimating a financial impact of a component based on a historical impact of at least one of the component and an analogous component.

12. (Original) The method according to claim 1 wherein the planning step includes obtaining the component for the target configuration and scheduling human resources consistent with availability of the component.

13. (Original) The method according to claim 1 further comprising updating the target configuration based on engineering change.

14. (Original) The method according to claim 1 further comprising updating the target configuration to facilitate compliance with a regulatory requirement.

15. (Original) The method according to claim 1 wherein the planning step includes scheduling and bringing together at least two of the following resources at a specific time and place: a requisite component, technical instructions, supporting equipment, acceptance criteria and procedures, tools, and repair personnel.

16. (Currently amended) The method according to claim 1 further comprising establishing a universal nomenclature definition applicable to ~~at least one of~~ a component, an item of equipment, a system, ~~and~~ an assembly of components, or a combination thereof to support the exchange of data associated with the universal nomenclature definition.

17. (Original) The method according to claim 1 further comprising querying a database containing components associated with corresponding universal nomenclature descriptors.

18. (Original) The method according to claim 1 further comprising the step of estimating a remaining life span of a component by determining a usage time span between an installation date of the component and a subsequent date, and deducting the usage time span from the longevity for the corresponding component.

19. (Currently amended) A system of managing maintenance activities for at least one item of equipment, the system comprising:

a configuration monitor for determining configuration maintenance requirements for maintaining a target configuration of an item of equipment;

a predictive maintenance controller for determining predictive maintenance requirements for the item of equipment based on ~~at least one of~~ a longevity estimate, a probability of failure, ~~and~~ a financial analysis, or a combination thereof; and

a resource planner for planning for the availability of at least one of resources and a component for performing maintenance consistent with the configuration maintenance requirements and the predictive maintenance requirements.

20. (Currently amended) The system according to claim 19 further comprising: a universal nomenclature manager for establishing a universal representation of components to facilitate ~~at least one of~~ acquisition of components from multiple sources, interchangeability of components, ~~and~~ tracking of component utilization, or a combination thereof.

21. (Original) The system according to claim 19 wherein the configuration monitor establishes the target configuration of the item of equipment and determines whether an actual configuration complies with the target configuration; the target configuration being based on at least one of safety, reliability, and performance.

22. (Original) The system according to claim 21 wherein resource planner is arranged to plan an upgrade requirement for upgrading the actual configuration to the target configuration if the actual configuration is noncompliant.

23. (Original) The system according to claim 19 wherein the predictive maintenance controller tracks performance data on at least one of a particular component and the item of equipment and predicts at least one required maintenance activity based upon the performance data with respect to a defined performance standard.

24. (Original) The system according to claim 23 wherein the resource planner schedules performance of the required maintenance activity at a defined time to maximize availability of the item of equipment.

25. (Original) The system according to claim 19 wherein the resource planner plans for the acquisition of at least one of the resources and the component consistent with the configuration maintenance requirements and the predictive maintenance requirements.

26. (Original) The system according to claim 19 wherein the resource planner comprises planning for the delivery of at least one of the resources and the component for a time interval at a common geographic location.

27. (Original) The system according to claim 19 wherein the longevity estimate of a component is based on a historical longevity of at least one of the component and an analogous component.

28. (Original) The system according to claim 19 wherein the probability of failure of a component is based on a historical probability of failure of at least one of the component and an analogous component.

29. (Original) The system according to claim 19 wherein the financial impact of a component is based on a historical impact of at least one of the component and an analogous component.

30. (Original) The system according to claim 19 further comprising: a purchasing system for obtaining the component for the target configuration; and a personnel management system for scheduling human resources consistent with availability of the component.

31. (Original) The system according to claim 19 wherein the target configuration complies with an engineering standard.

32. (Original) The system according to claim 1 wherein the target configuration complies with a regulatory requirement.

33. (Original) The system according to claim 19 further comprising a resource planner for scheduling and bringing together at least two of the following resources at a

specific time and place: a requisite component, technical instructions, supporting equipment, acceptance criteria and procedures, tools, and repair personnel.

34. (Original) The system according to claim 19 further comprising a universal nomenclature manager for establishing a universal nomenclature definition applicable to at least one of a component, an item of equipment, a system, and an assembly of components to support the exchange of data associated with the universal nomenclature definition.

35. (Original) The system according to claim 19 further comprising a universal nomenclature manager for querying a database containing components associated with corresponding universal nomenclature descriptors.

36. (New) A maintenance system comprising:

a communication interface operable to receive:

component data from a supplier data source;

operational data from an equipment sensor; and

worker qualifications data from a human resources system;

memory storing the component data, operational data, and the worker qualifications data;

a configuration monitor operable to determine an equipment configuration update when an equipment configuration is out-of-date;

a predictive maintenance controller coupled to the memory and comprising:

a timer;

a scheduler receiving time data, duration data, or both from the timer; and

a maintenance module coupled to the scheduler and comprising a financial analyzer and a longevity estimator, a probability of failure predictor, or both;

where the predictive maintenance controller is operable to determine a predictive maintenance plan based on the component data, worker qualifications data, the operational data, and a predictive maintenance factor; and

where the communication interface is further operable to transmit the predictive maintenance plan, the equipment configuration update, or both:

to a project personnel management system; and

to a purchasing and inventory control system.

37. (New) The maintenance system of claim 36, where the predictive maintenance controller comprises at least the longevity estimator, and where the predictive maintenance factor is a longevity estimate for an equipment component.

38. (New) The maintenance system of claim 36, where the predictive maintenance controller comprises at least the probability of failure predictor, and where the predictive maintenance factor is a probability of failure estimate.

39. (New) The maintenance system of claim 36, further comprising a resource planner operable to bring together components, workers, tools, instructions, or a combination thereof to support the predictive maintenance plan, the equipment configuration update, or both at a geographic location.

40. (New) The maintenance system of claim 36, further comprising an allocation intermediary coupled to the communication interface and the scheduler.

41. (New) The maintenance system of claim 36, where the memory comprises:

a first database comprising the component data and operational data;

a second database comprising the worker qualifications data;

and a third database comprising planned maintenance data.

42. (New) The maintenance system of claim 36, where the financial analyzer is operable to provide a cost estimate for the maintenance plan.

43. (New) The maintenance system of claim 42, where the memory comprises a first database comprising standard repair data and parts list data.

44. (New) The maintenance system of claim 42, where the memory comprises a first database comprising geography definition data and planned work geography definition data.

45. (New) The maintenance system of claim 41, further comprising a fourth database comprising maintenance history data.

46. (New) The maintenance system of claim 36, further comprising an equipment maintenance worker terminal coupled to the project personnel management system through a communication network.

47. (New) The maintenance system of claim 36, further comprising a supplier order fulfillment center coupled to the purchasing and inventory control system through a communication network.

48. (New) A maintenance method comprising:

receiving component data from a supplier data source, operational data from an equipment sensor, and worker qualifications data from a human resources system over a communication interface;

storing the component data, the operational data, and the worker qualifications data in a memory;

determining an equipment configuration update when an equipment configuration is out-of-date;

using a financial analyzer and a longevity estimator, a probability of failure predictor, or both in conjunction with a timer and a scheduler to determine a predictive maintenance plan based on the component data, the worker qualifications data, the operational data, and a predictive maintenance factor; and

transmitting the maintenance plan, the equipment configuration update, or both through the communication interface to a project personnel management system and to a purchasing and inventory control system.

49. (New) The method of claim 48, where the act of using comprises using at least the longevity estimator, and where the predictive maintenance factor is a longevity estimate for an equipment component.

50. (New) The method of claim 48, where the act of using comprises using at least the probability of failure predictor, and where the predictive maintenance factor is a probability of failure estimate.

51. (New) The method of claim 48, further comprising planning resources to bring together components, workers, tools, instructions, or a combination thereof to support the predictive maintenance plan, the equipment configuration update, or both at a geographic location.

52. (New) The method of claim 48, where the act of storing comprises:
storing the component data and operational data in a first database,
storing the worker qualifications data in a second database; and
further comprising storing planned maintenance data in a third database.

53. (New) The method of claim 52, further comprising storing maintenance history data in a fourth database, the maintenance history comprising historical configuration data and historical planned maintenance data.

54. (New) The method of claim 48, further comprising storing standard repair data and parts list data in a first database, and storing historical resource data in a second database.

55. (New) The method of claim 54, further comprising searching the memory for worker qualifications and availability.

56. (New) The method of claim 48, further comprising allocating maintenance personnel to perform the maintenance plan based on simultaneous availability of a replacement component.

57. (New) The method of claim 48, where transmitting comprises transmitting through the project personnel management system to an equipment maintenance worker terminal.

58. (New) The method of claim 48, where transmitting comprises transmitting through the purchasing and inventory control system to a supplier order fulfillment center.